LYTEHILYTEUSERGUIDE

Lyte Industries (Wales) Ltd

LYTE
LADDERS | TOWERS

HILYTE250 INDUSTRIAL TOWER

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks.
The individual decks have a maximum capacity of 275kg.

All our user guides are compiled in order to give the user step by step instructions to ensure the product is assembled correctly and to the latest safety standard for use when working at height.

The law requires that anyone assembling and using a tower be competent to do so and should also have a copy of the correct manufacturer's instructions.

If you require further information on this please see the PASMA Operators Code of Practice or call us on ***01792 796666***.

www.lyteladders.co.uk

PLEASE READ THIS SECTION CAREFULLY

The Hilyte250 is a lightweight scaffold tower and is used for indoor and outdoor use.
The Hilyte250 is manufactured, tested & certified to BSEN1004:2004 (Class3).
These instructions take into account the latest regulations, guidance and all product standards and is intended to give guidance on the best practice for the assembly and dismantling of access towers. These instructions must always be used in conjunction with a suitable and sufficient Risk Assessment relative to the project. Current regulations require that any person assembling towers must be competent and qualified to do so. For full information on the correct assembly and use of mobile access towers, consult the PASMA Operators Code of Practice (Revision 12.6). Contact: PASMA at: Head Office & Administration Centre, PO Box 26969, Glasgow G3 9DR.

Safety Notes

This instruction guide aims to provide the user with step by step instructions to ensure the product is assembled safely and correctly using the 3T method, Through The Trap. This method allows the operative to position themselves through the trap of the platform and place horizontal braces ahead of them so that collective fall prevention measures are in place before they stand on the platform.

Before assembly

1. Ensure that the instruction guide has been read and understood by anyone using the equipment. If in doubt contact your supplier.
2. Lyte Industries recommend two competent persons are used to build the range of Lyte Towers. On towers above 4mtrs it is an ESSENTIAL requirement that at least two persons are used.
3. Always ensure that the necessary components are available and inspected for damage and wear prior to assembly. DAMAGED OR INCORRECT COMPONENTS SHALL NOT BE USED.
4. Ensure the ground is suitably firm and clear of obstruction.
5. All tower frames must be lifted and lowered from the inside of the tower footprint. It is acceptable to lift frames with the aid of a rope, secured with a reliable knot.
6. The life of tower components will be increased if proper care is taken of them during handling, assembly, transportation and storage. All components should be inspected after storage and transport.
7. Stabilisers shall always be fitted at the earliest opportunity.
8. Mobile access towers are not designed to be lifted or suspended.
9. The location of the mobile access tower shall be checked to prevent hazards during assembly, dismantling, moving and safe working with respect to:
    a) Ground conditions;
    b) Level and slope;
    c) Obstructions;
    d) Wind conditions.
10. All parts, auxiliary tools and safety equipment (ropes, etc.), for assembling the mobile access tower should be checked and available on site.

Whilst assembling a tower

1. Outdoor freestanding towers must not exceed a platform height of 8.2m, for indoor use the maximum platform height is 12.2m. To ensure maximum stability is achieved, stabilisers or outriggers must always be fitted at the earliest opportunity, usually after the first module is complete. The quantity schedule overleaf illustrates the correct stabiliser units required for each platform height.
2. Always take into account the ground conditions i.e. are they capable of withstanding the loads imposed by the scaffolding.
3. Ensure the tower is level and vertical.
4. Ensure that the tower is not overloaded and that safe working loads are adhered to.
5. The Work at Height Regulations 2005 state that all platforms – from which a person or object is possible to fall a distance liable to cause personal injury – must be fitted with guardrails at a minimum height of 950mm above the platform itself. In addition to this, current regulations require intermediate guardrails be fitted to leave a gap no more than 470mm.
6. Toe boards are mandatory at all places of work from which it is possible that tools, equipment or other material may fall and is liable to cause personal injury. Their use on intermediate or rest platforms is not compulsory unless a risk assessment identifies a risk.

Whilst using the tower

1. Do not exceed the safe working load of the tower.
2. Ensure that castors are locked and that the Tower is both level and vertical.
3. Ensure that environmental changes influence safe use of the mobile access tower.
4. The platform height of the tower must not be extended using ladders, boxes or other devices.
5. If a tower is left unattended, it must be secured against unauthorised usage or adverse weather conditions.
6. Adjustable legs are intended only to level the tower and never to gain additional tower height.
7. For linking towers or special applications, always consult your supplier.
8. Care must be taken when working on the tower as there can be many factors that can contribute to overturning of the mobile access tower, such as:
    - Using power tools, jet washers or other tools that impose side loads.
    - Horizontal loads caused by use; for example, as a result of work on an adjacent structure;
    - Additional wind loads (tunnelling effect of open-ended buildings, uncladded buildings and on building corners).

The maximum side load on a freestanding tower with stabilisers is 20Kgs.

9. It is not permissible to attach bridging between a tower and a building.
10. Never jump onto platforms.
11. Towers used outdoors shall, wherever possible, be secured to a building or other structure.

Before moving a tower

1. Towers should only be moved with the utmost caution. Before moving, ensure the route is clear of any obstructions, both at ground level and overhead (particularly overhead cables).
2. Never attempt to move a tower with people or materials still on it.
3. Ensure the tower height is reduced to 4m when stabilisers are in the correct position. Reduce tower to 2m when stabilisers are in the incorrect position before moving.
4. Stabilisers should be left fitted in position, though raised no more than 25mm from the ground.
5. Move the tower only by applying manual effort, pushing at the base of the tower.
6. NEVER MOVE A TOWER IF WIND LEVELS ARE ABOVE 3 ON THE BEAUFORT SCALE.

After moving the tower

1. Always inspect the tower after moving and before use.
2. Always check that the tower is square and level with the use of a spirit level
3. Always refer to the instructions in this guide.
4. Never throw equipment from the tower, either lower it with a rope or by hand.

The Beaufort Scale

Beaufort Scale	Description	Air Speed	Action
0	Calm, smoke rises easily	1mph	None required
<3	Leaves & small twigs in constant motion, wind extends light flag	12mph	No immediate action required
4	Moderate breeze, small branches move	17mph	Cease work
5	Strong breeze, large Branches bend	25mph	Tie tower to a rigid structure
>6	Walking progress impeded	40mph	Dismantle tower if such conditions are expected

Stabilisers

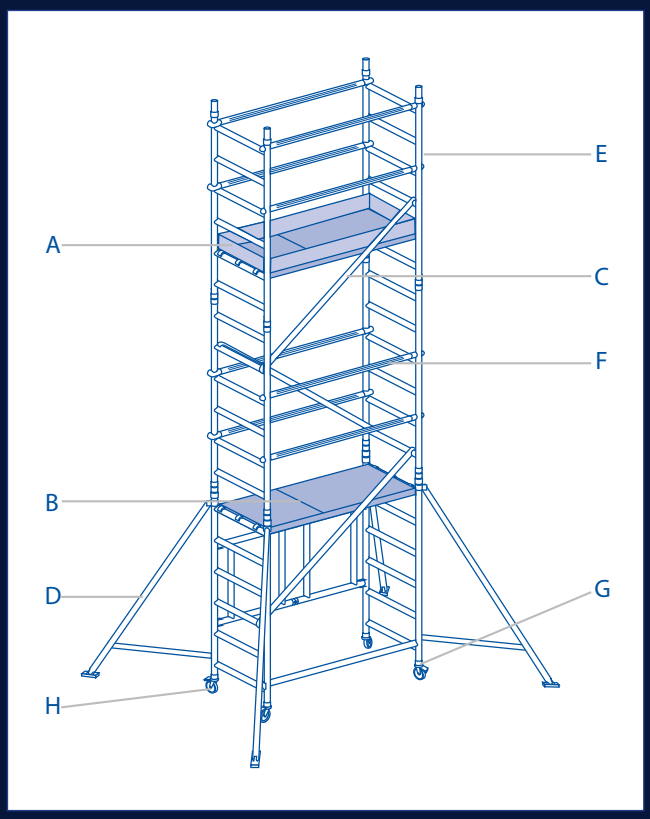
STABILISERS OR OUTRIGGERS SHALL ALWAYS BE FITTED WHEN SPECIFIED.

- When fitting stabilisers ensure they're as low as possible while providing the largest available footprint.
- Fit top boom to the frame, tighten enough so it won't detach but can still be adjusted.
- Now fit the bottom boom similar to the top one.
- Adjust top and bottom booms ensuring the stabiliser foot is in firm contact with the ground.
- For telescopic stabilisers, remove locking pin and extend the inner tube to desired length then secure the locking pin in place. It can now be fitted in the same manner as the standard stabiliser.

Maximum Safe Working Loads

The maximum safe working load for the tower is 950kg.
This is to include the tower self weight and ballast.
The maximum capacity of each working level is 275kg, regardless of the number of decks.
The individual decks have a maximum capacity of 275kg.

COMPONENTS FOR HILYTE 250		WEIGHT
DLC	150mm Locking Castor	3.54kg
ALU	Adjustable Leg	0.98kg
HL4SW	4 Rung single width frame	5.00kg
HL6SW	6 Rung single width frame	7.00kg
HL8SW	8 Rung single width frame	9.00kg
HL4DW	4 Rung double width frame	6.00kg
HL6DW	6 Rung double width frame	9.00kg
HL8DW	8 Rung double width frame	12.00kg
HD18	1.8HLD Hatch Deck	13.40kg
HLHD25	2.5HLD Hatch Deck	17.70kg
SD18	1.8m Standard Deck	12.62kg
SD25	2.5m Standard Deck	17.22kg
HB18	1.8m Horizontal Brace	2.05kg
HB25	2.5m Horizontal Brace	2.50kg
DB21	2.1m Diagonal Brace	2.20kg
DB27	2.7m Diagonal Brace	2.70kg
TBL18	1.8m Side Toeboard	2.90kg
TBL25	2.5m Side Toeboard	3.54kg
TBEDW	1.2m End Toeboard	1.94kg
TBESW	0.85m End Toeboard	1.15kg
SSU	Standard Stabiliser	3.80kg
TSU	Telescopic Stabiliser	8.20kg
LTSU	Large Telescopic Stabiliser	8.40kg



A - Toe Board Set
B - Hatch Deck
C - Diagonal Brace
D - Stabiliser
E - 4, 6, 8 Rung Span Frame
F - Horizontal Brace
G - Adjustable Leg
H - Castor

Assembly Checklist

1. Always inspect components before assembling the tower. Any damaged components should not be used, refer to supplier or scrap depending on the damage. ☐
2. Always inspect the tower before using. ☐
3. Ensure that the tower is level and square. ☐
4. Ensure castors are locked. ☐
5. Ensure legs are correctly adjusted. ☐
6. Ensure all horizontal braces and platforms are positioned as per assembly guide. ☐
7. Ensure stabilisers are fitted as specified in the instruction manual. ☐
8. Ensure platforms are correctly located and wind locks are on. ☐
9. Ensure Toeboards are correctly fitted as described in the instruction manual. ☐

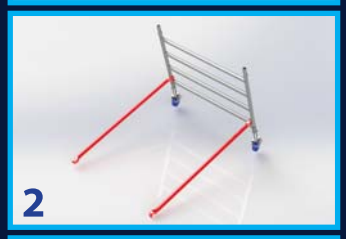
Always refer to this checklist before and after erection of the tower.
If in doubt about any application consult your supplier for advice.

PLEASE REMEMBER:
A thorough risk assessment must be carried out prior to any work being carried out at height.

4.2m Tower Build

1: Fit leg and castor assembly into the two 4 rung span ladder frames.

2: Fit the 1st horizontal brace on the frame horizontal, then the 2nd on the upright as shown.



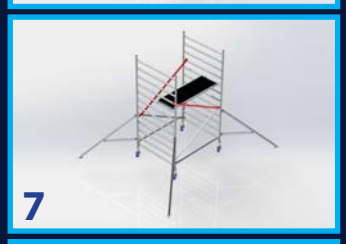
3: Attach both horizontal braces to the span frame as shown in the illustration. When complete ensure the tower is square and level by using a spirit level.

4: Fit 8 rung ladder span frames on each side, ensure the circlips are locked. Fit one diagonal brace 50 mm in from the upright and the next brace flush against the upright.

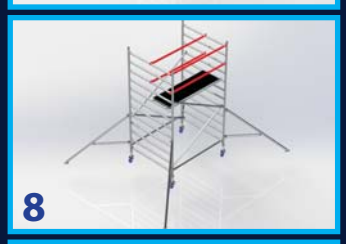
5: Place Platform on the 8th rung ensuring hatch opens outwards. Ensure wind clips are locked.

6: Fit stabilisers ensuring that the maximum footprint is achieved.

7: Fit 2 diagonal braces in opposing directions from the 5th to the 9th rung.



8: Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the hatch platform.



9: Fit 8 rung ladder span frames on each side, ensure the circlips are locked.

10: Fit 2 diagonal braces in opposing directions from the 9th to the 13th rung. Then another diagonal brace from 13th to the 17th rung.

11: Place standard and hatch platforms on the 16th rung ensuring hatch opens outwards and wind clips are locked.

12: Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the platform.

13: Fit toeboards then carryout final inspection before use.

3.2m Tower Build

1: Fit leg and castor assembly into the two 8 rung span ladder frames.

2: Fit the 1st horizontal brace on the frame horizontal, then the 2nd on the upright as shown.

3: Attach both horizontal braces to the span frame as shown in the illustration.

4: Fit 2 diagonal braces in opposing directions from the 1st to the 5th rungs.

5: Place Platform on the 4th rung ensuring hatch opens outwards. Ensure wind clips are locked. Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the hatch platform.

6: Fit stabilisers ensuring that the maximum footprint is achieved.

7: Fit 8 rung ladder span frames on each side, ensure the circlips are locked.

8: Fit 2 diagonal braces in opposing directions from the 5th to the 9th rung. Then another diagonal brace from 9th to the 14th rung.

9: Place standard and hatch platforms on the 12th rung ensuring hatch opens outwards and wind clips are locked.

10: Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the platform.

11: Fit toeboards then carryout final inspection before use.

12: In order to dismantle the mobile access tower please reverse the erection instruction.

If you have any questions or need help assembling your tower please call us on ***01792 796666***

Hilyte 250

2.7m Base Out

1: Fit leg and castor assembly into the two 6 rung span ladder frames.

2: Fit the 1st horizontal brace on the frame horizontal, then the 2nd on the upright as shown.

3: Attach both horizontal braces to the span frame as shown in the illustration.

4: Fit 8 rung ladder span frames on each side, ensure the circlips are locked. Fit one diagonal brace 50 mm in from the upright and the next brace flush against the upright.

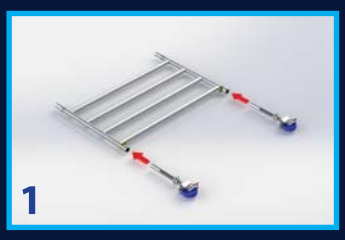
5: Fit stabilisers ensuring that the maximum footprint is achieved. Use an additional platform from this stage onwards.

6: Fit 4 diagonal braces in opposing directions from the 5th to the 9th rungs. and the 9th to the 13th rungs.

7: Place Platform on the 10th rung ensuring hatch opens outwards. Ensure wind clips are locked. Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the hatch platform.

1.7m Base Out

1: Fit leg and castor assembly into the two 4 rung span ladder frames.



2: Fit the 1st horizontal brace on the frame horizontal, then the 2nd on the upright as shown.

3: Attach both horizontal braces to the span frame as shown in the illustration.

4: Fit 6 rung ladder span frames on each side, ensure the circlips are locked.

5: Fit 4 diagonal braces in opposing directions from the 1st to the 5th rungs and 5th to the 9th rungs. Fit one diagonal brace 50 mm in from the upright and the next brace flush against the upright. Place platform on the 6th rung ensuring hatch opens outwards. Ensure wind clips are locked.

6: Fit stabilisers ensuring that the maximum footprint is achieved.

7: Using the 3T method of assembly, fit horizontal bracing on the 2nd and 4th rungs above the hatch platform.

QUANTITY SCHEDULE HiLyte Industrial Tower System Single Width to BSEN1004:2004 1.8m 2.5m

Platform Height	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
Dual Locking Castors	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Adjustable Leg Unit	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4 Rung Single Width Span Frame	2	0	0	2	2	0	0	2	2	0	0	2	2	0	0	2	2	0	0	2	2
6 Rung Single Width Span Frame	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-
8 Rung Single Width Span Frame	2	2	4	2	4	4	6	4	6	6	8	6	8	8	10	8	10	10	12	10	12
1.8m Hatch Deck	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
1.8m Horizontal Brace	6	6	10	10	10	14	14	14	14	18	18	18	18	22	22	22	22	26	26	26	26
2.1m Diagonal Brace	3	5	5	7	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	23
1.8m Toeboard Length	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
0.85m End Toeboard	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Standard Stabiliser Unit	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telescopic Stabiliser Unit	-	-	-	-	-	4	4	4	4	-	-	-	-	4	4	4	-	-	-	-	-
Large Telescopic Stabiliser	-	-	-	-	-	-	-	-	-	4	4	4	4	-	-	-	4	4	4	4	4
Component Schedule based on 3T specification																					

QUANTITY SCHEDULE HiLyte Industrial Tower System Double Width to BSEN1004:2004 1.8m 2.5m

Platform Height	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
Dual Locking Castors	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Adjustable Leg Unit	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
4 Rung Double Width Span Frame	2	0	0	2	2	0	0	2	2	0	0	2	2	0	0	2	2	0	0	2	2
6 Rung Double Width Span Frame	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-	2	-
8 Rung Double Width Span Frame	2	2	4	2	4	4	6	4	6	6	8	6	8	8	10	8	10	10	12	10	12
1.8m Standard Deck	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.8m Hatch Deck	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	6
1.8m Horizontal Braces	6	6	10	10	10	14	14	14	14	18	18	18	18	22	22	22	22	26	26	26	26
2.1m Diagonal Brace	3	5	5	7	7	9	9	11	11	13	13	15	15	17	17	19	19	21	21	23	23
1.8m Toeboard Length	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
End Toeboard Double Width	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Standard Stabiliser Unit	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Telescopic Stabiliser Unit	-	-	-	-	-	4	4	4	4	-	-	-	-	4	4	4	-	-	-	-	-
Large Telescopic Stabiliser	-	-	-	-	-	-	-	-	-	4	4	4	4	-	-	-	4	4	4	4	4
Component Schedule based on 3T specification																					